



SSEN Distribution

DNOA OUTCOMES REPORT

November 2025



Scottish & Southern
Electricity Networks

DSO Powering Change



Contents



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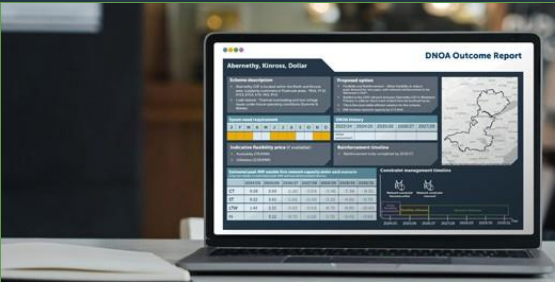
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GLOSSARY

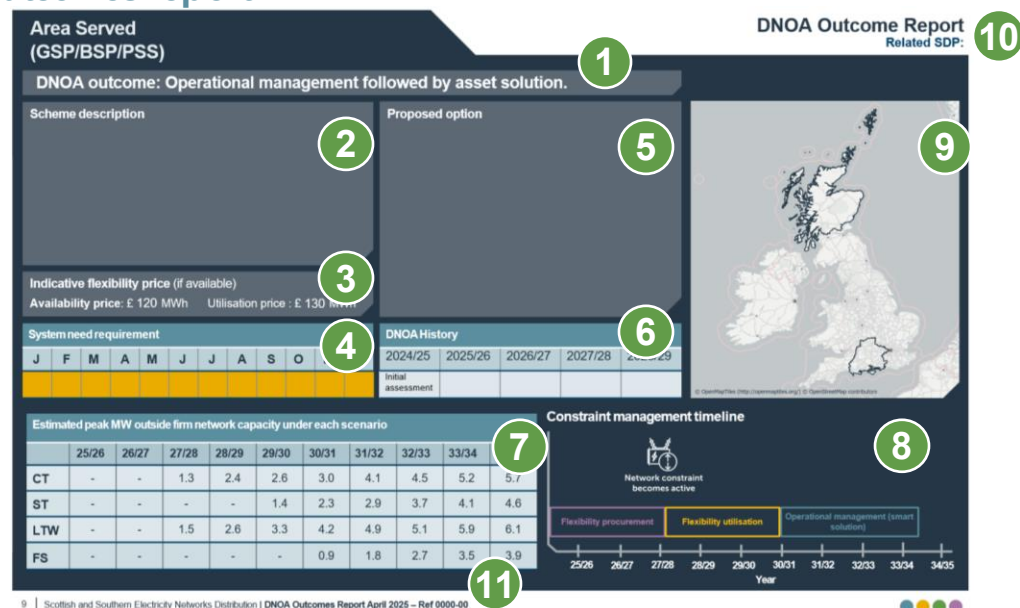
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How to view this report

The following guidance note can be used to help navigate each outcomes report



1

DNOA outcome:

- The overall DNOA outcome from the process.

2

Scheme description:

- This section describes the location where a system need has been identified and where capacity is released (if relevant). This is accompanied with indicative postcodes for the customer areas related to this scheme as well as the relevant local authorities.
- The type of constraint on the network is included.

3

Indicative flexibility price:

- The indicative average flexibility price used in the techno-economic assessment is given in this section where relevant and available. This is typically in a 2020/21 price base.
- This is given as an availability (£/MW/h) and utilisation (£/MWh) price.

4

Proposed option:

- An outline of the proposed solution option aligned with the defined outcomes in the DNOA methodology. A summary of where the proposed option resolves constraints and for how long is also provided.
- An estimated value for the capacity released by the delivery of any works required can be found here. It does not necessarily relate to available capacity.

5

System need requirement:

- This table highlights in yellow the months of the year where there is a potential system need due to the constraint arising.

6

DNOA history:

- A record of the outcome report status.

7

Estimated peak MW outside firm capacity:

- The forecasted exceedance of load over the firm capacity of the relevant area of the network. Numbers in parenthesis indicate exceedance without network reinforcement.

8

Constraint management timeline:

- The timeline illustrates the stages needed to remove the constraint from the network.
- **For schemes proposing to procure flexibility:** The first stage (purple) is an indicative 2-year initial flexibility procurement window where any required services will be acquired. The second stage (yellow) indicates the years where the option uses flexibility services to release more capacity. The last stage (green) indicates the year when capacity will be increased on the network to relieve the constraint.
- **For schemes proposing an asset solution:** The timeline indicates when capacity will be increased on the network to relieve the constraint.

9

Scheme map:

- The map provided shows the approximate geographical area covered by the scheme.

10

Related SDP:

- The Strategic Development Plan (SDP) which covers the area referred to in the report is noted.

11

Reference:

- The reference number for each DNOA outcome report is included in the index on pages 4 – 7.



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1 Procure Flexibility Solutions - see below the DNOA Outcome Reports proposing flexibility opportunities

DNOA outcome	Flexibility utilisation period	Indicative postcode areas
Ref.1125-01 Aberdeen City (Queens Lane North PSS) – Pg.9	2027/2028-2028/2029 (1 year)	AB10, AB11, AB15, AB22, AB23, AB25
Ref.1125-03 Inveraray (Port Ann GSP) – Pg.11	2026/2027-2028/2029 (2 years)	PA31, PA32
Ref.1125-10 Southeast of Loch Lomind (Drymen PSS and Killearn) – Pg.18	2027/2028-2028/2029 (1 year)	G63, G83

2 Asset Solutions - see below the DNOA Outcome Reports proposing asset solutions only

DNOA outcome	Capacity increase from	Indicative postcode areas
Ref.1025-02 Head of Loch Melfort (Kilmelford PSS) – Pg.10	2032/2033	PA31, PA33, PA34
Ref.1025-04 Islay and Jura - Phase 1 (Carradale GSP 33kV Circuits) – Pg.12	2028/2029	KA27, PA23, PA29-33, PA42-49, PA60-61
Ref.1025-05 Isle of Skye (Portee PSS and Uig PSS) – Pg.13	2028/2029	IV51
Ref.1025-06 Kintyre (Port Ann 33kV Circuits) – Pg.14	2028/2029	PA23, PA29 - 33, PA60, PA44
Ref.1025-07 North West Mull, Coll and Tiree (Dervaig PSS) – Pg.15	2032/2033	PA65, PA67, PA72, PA73, PA74, PA75, PA77, PA78
Ref.1025-08 Orkney Islands - Phase 1 (Thurso South GSP) – Pg.16	2029/2030	AB11, KW1, KW3, KW12, KW14 - 17.



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2 Asset Solutions - see below the DNOA Outcome Reports proposing asset solutions only

DNOA outcome	Capacity increase from	Indicative postcode areas
Ref.1025-09 South of Loch Scridain (Kinloch PSS) – Pg.17	2031/2032	PA66, PA67, PA70, PA72, PA75, PA76
Ref.1025-10 West Coast of Scotland (Oban PSS) – Pg.19	2028/2029	PA28, PA31, PA34, PA37



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1 Procure Flexibility Solutions - see below the DNOA Outcome Reports proposing flexibility opportunities

DNOA outcome	Flexibility utilisation period	Indicative postcode areas
Ref.1125-12 Berinsfield (Berinsfield PSS) – Pg.24	2031/2032-2032/2033	OX10, OX11, OX13, OX14, OX44.
Ref.1125-13 Central Dorset (Lytchett BSP) – Pg.25	2031/2032-2033/2034	DT2, DT11, BH15-18, BH20-21
Ref.1125-15 North Bournemouth (Winton PSS) – Pg.27	2029/2030-2031/2032	BH1 - 12, BH19
Ref.1125-17 North Dorset and South Wiltshire II (Shaftesbury BSP) – Pg.29	2032/2033-2033/2034	BA8 - 9, BA12, BH21, DT9 - 11, SP1 - 8
Ref.1125-19 Northwest Bournemouth (East Howe PSS) – Pg.31	2031/2032-2032/2033	BH(4, 6, 8-12, 17, 21, 22, 24, 31)
Ref.1125-20 Southall (Springfield Road PSS) – Pg.32	2028/2029-2030/2031	UB1, UB2, UB3, UB4, UB10
Ref.1125-22 West Parley – Pg.34	2033/2034-2034/2035	BH(3, 8, 9, 10, 11,13, 22, 23)
Ref.1125-23 Wiltshire (Peterfinger PSS) – Pg.35	2026/2027-2029/2030	SP1, SP2, SP4, SP5, SP9.



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2 Asset Solutions - see below the DNOA Outcome Reports proposing asset solutions only

DNOA outcome	Capacity increase from	Indicative postcode areas
Ref.1125-14 Lower Mannington and Christchurch (Christchurch & New Milton BSP) – Pg.26	2030/2031	BH1 -12, BH14-15, BH17, BH20, BH23-26, DT1, DT4, SP3, SP8 SL1, RG42
Ref.1125-16 North Dorset and South Wiltshire I (Shaftesbury BSP) – Pg.28	2030/2031	BA8 - 9, BA12, BH21, DT9 - 11, SP1 - 8
Ref.1125-18 Northeast Hampshire (Coxmoor Wood BSP) – Pg.30	2029/2030	BA12, BN18, GU(7 -17, 33 - 35, 46, 51, 52) RG(21, 24, 25, 27, 29, 40), S024
Ref.1125-21 West Berkshire & East Wiltshire (Bramley (Amesbury-Thatcham) GSP) – Pg.33	2032/2033	OX12, RG7, RG8, RG14, RG17-RG20, RG25, RG26, RG28, SN8-SN10, SP4, SP9, SP11



Cricklade - Minety (Cricklade PSS & Minety Village PSS)

DNOA Outcome Report Related SDP: Minety

DNOA outcome: Asset solution

Scheme description

- The reinforcement of the circuits from Cirencester BSP to Cricklade PSS, and to Minety Village PSS and Kemble RAF PSS will increase capacity in the Cricklade-Minety area. Postcode(s): GL7, SN4, SN5, SN6, SN16.
- Local authority: Cotswold and Wiltshire
- Load related – Circuit voltage issues during FCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: An additional circuit from Cirencester BSP to Cricklade PSS, two additional circuits from Cirencester BSP to Minety Village PSS, and reconfigure the existing ringed network.
- Flexibility was unable to be utilised due to it not being suitable for the constraint type.
- This option addresses the forecasted issues out to 2050.
- Capacity released: 73.3 MVA

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price: £ N/A /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment				



Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA OUTCOMES - SHEPD

DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the Queens Lane North PSS will increase capacity in the Aberdeen area. Postcode(s): AB10, AB11, AB15, AB22, AB23, AB25.
- Local authority: Aberdeenshire Council, Aberdeen City Council.
- Load related – substation and circuit thermal overload during FCO conditions due to forecasted demand growth.

Proposed option

- Flexibility Solution: Utilise flexibility for 1 year during 2028 to defer delivery of the 33kV circuit replacement works. Flexibility is not considered for the transformers as they are at end of life requiring immediate replacement.
- Asset Solution: Reinforcement of 33/11kV primary transformers at Queens Lane North PSS in 2024/25. Subsequent replacement of the Woodhill GSP – Queens Lane North PSS 33kV circuits.
- This option addresses the forecasted thermal overload/voltage issues at Queens Lane North PSS out to 2050.
- Capacity released: 17.5MVA



Indicative flexibility price (if available)

Availability price: £ 150 /MW/h Utilisation price : £ 200 /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

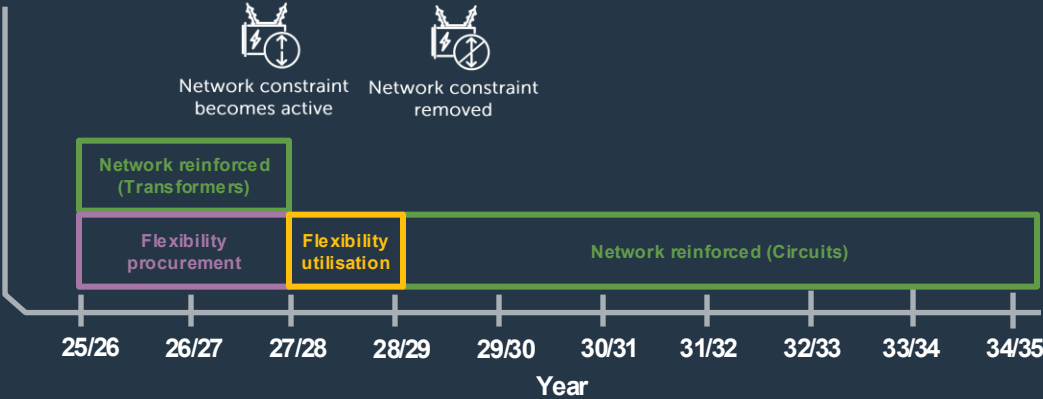
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	0.75	(1.84)	(3.03)	(4.10)	(5.30)	(6.53)	(7.75)	(9.19)
ST	-	-	-	-	-	(0.42)	(1.16)	(1.99)	(2.96)	(4.06)
LTW	-	(0.05)	1.16	(2.41)	(4.17)	(6.05)	(7.74)	(9.59)	(11.52)	(13.39)
FS	-	-	-	-	-	-	(0.03)	(0.60)	(1.23)	(1.94)

Constraint management timeline



DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of Kilmelford PSS will increase capacity in the Kilmelford area. Postcode(s): PA31, PA33, PA34.
- Local authority: Argyll and Bute .
- Load related – substation thermal and voltage constraints during SCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: Installation of a new 6MVA primary substation, south of Kilmelford. Installation of a 4MVAr STATCOM at Kilmelford and a new 33kV interconnection between Tullich and Kilmelford.
- Flexibility was unable to be utilised due to network resilience requirements.
- This option addresses the forecasted demand growth at Kilmelford PSS out to 2050.
- Capacity released: 5.1MVA



Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

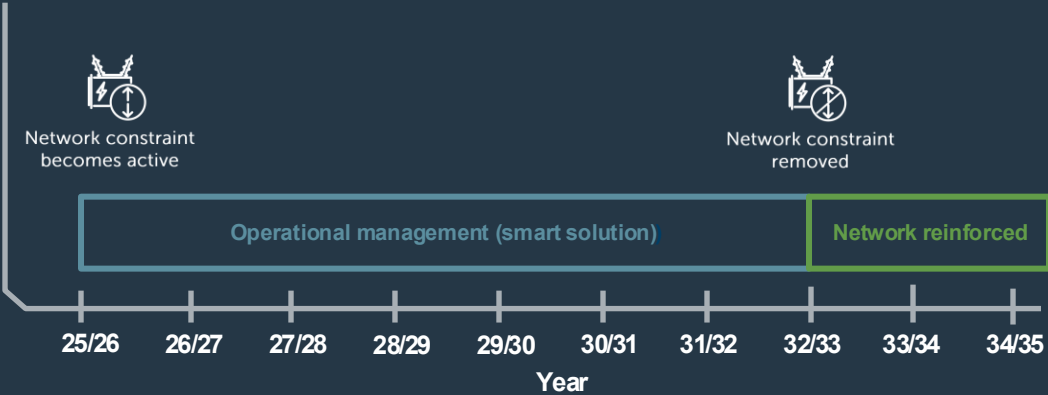
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	1.51	1.54	1.60	1.66	1.71	1.76	1.81	(1.84)	(1.88)	(1.92)
ST	1.49	1.51	1.53	1.55	1.57	1.59	1.61	(1.63)	(1.66)	(1.70)
LTW	1.53	1.57	1.62	1.66	1.71	1.76	1.81	(1.85)	(1.89)	(1.94)
FS	1.49	1.50	1.52	1.54	1.56	1.57	1.59	(1.61)	(1.63)	(1.66)

Constraint management timeline



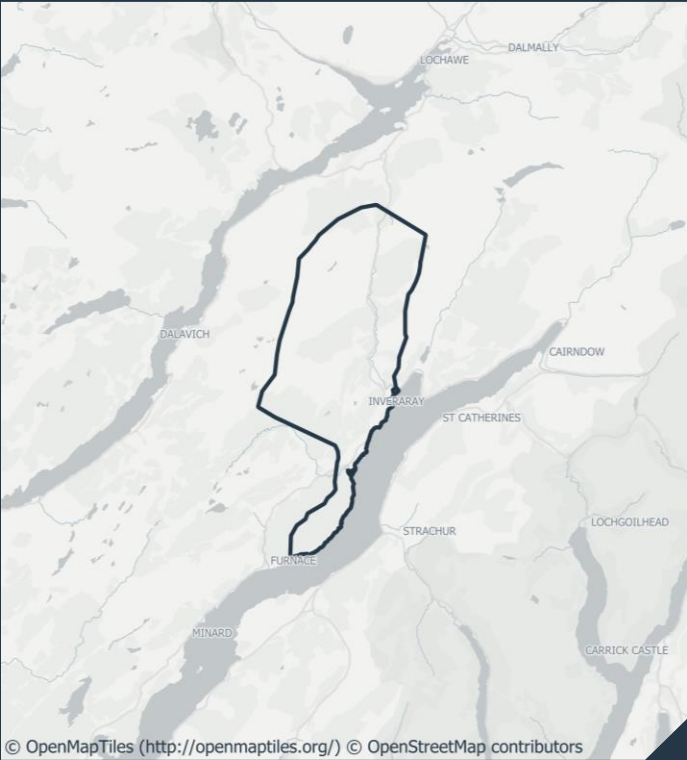
DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the Cromalt PSS and Inveraray PSS will increase capacity in the Inveraray area. Postcode(s): PA31, PA32.
- Local authority: Argyll & Bute.
- Load related – substation thermal overload during FCO conditions due to forecasted demand growth.

Proposed option

- Flexibility/Asset Solution: Utilise flexibility to defer reinforcement for 2 years. Followed by reinforcement of the 33/11kv transformers at both Cromalt PSS and Inveraray PSS.
- This option addresses the forecasted thermal overload at Cromalt PSS and Inveraray PSS out to 2050.
- Capacity released: 1.95MVA



Indicative flexibility price (if available)

Availability price: £ 108 /MW/h Utilisation price : £ 133 /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

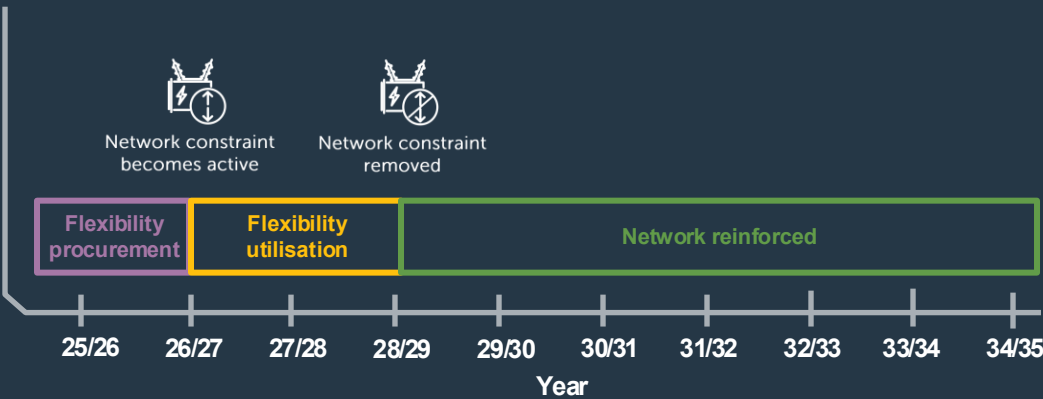
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	0.02	0.14	0.28	(0.43)	(0.59)	(0.67)	(0.76)	(0.81)	(0.86)	(0.93)
ST	-	0.11	0.23	(0.33)	(0.46)	(0.53)	(0.63)	(0.67)	(0.72)	(0.77)
LTW	0.15	0.25	0.39	(0.46)	(0.52)	(0.57)	(0.65)	(0.71)	(0.77)	(0.85)
FS	-	-	-	-	-	(0.03)	(0.11)	(0.19)	(0.27)	(0.36)

Constraint management timeline



Islay and Jura – Phase 1
(Carradale GSP 33kV circuits)

DNOA outcome: Operational management followed by asset solution.

Scheme description

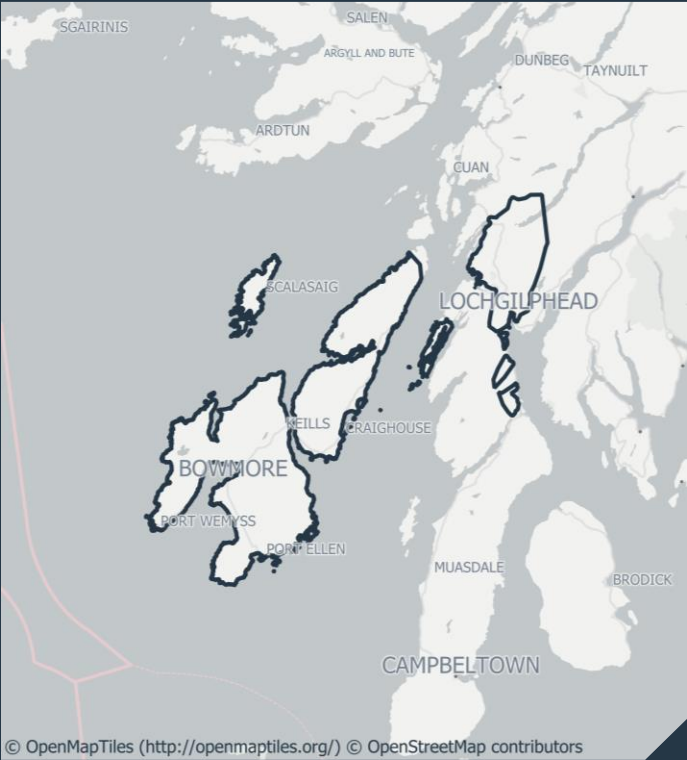
- The reinforcement of the Port Ann and Carradale GSP 33kV networks feeding Islay and Jura will increase capacity in the Inner Hebrides area. Postcode(s): KA27, PA23, PA29-33, PA42-49, PA60-61.
- Local authority: Argyll and Bute Council
- Load related – security of supply, circuit thermal overload and voltage issues during FCO, SCO and intact conditions due to forecasted demand growth.
- The proposed work forms the first phase of strategic development as referenced in our HOWSUM proposals. Further assessment will be undertaken on the need for later phases from ED3.

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

Proposed option

- Asset Solution: A new 33kV circuit from BAT Wind I (Carradale GSP) to Port Ellen PSS and a new 33kV circuit from BAT Wind III (Carradale GSP) to Port Ellen PSS by 2027/28. Network to be operationally managed through use of Bowmore power station and third party flexibility until asset solution is complete.
- SSEN currently procure flexibility services on Islay, however there is insufficient market viability to meet the increased longer term needs of the Islands through flexibility services.
- This option addresses the forecasted thermal overload and voltage issues identified in ED2 and provides future resilience on the Islay/ Jura networks out to 2028. Additional works are required in ED3+ to secure the network out to 2050 as defined in our HOWSUM proposals.
- Capacity released: 97.5MVA (ED2)

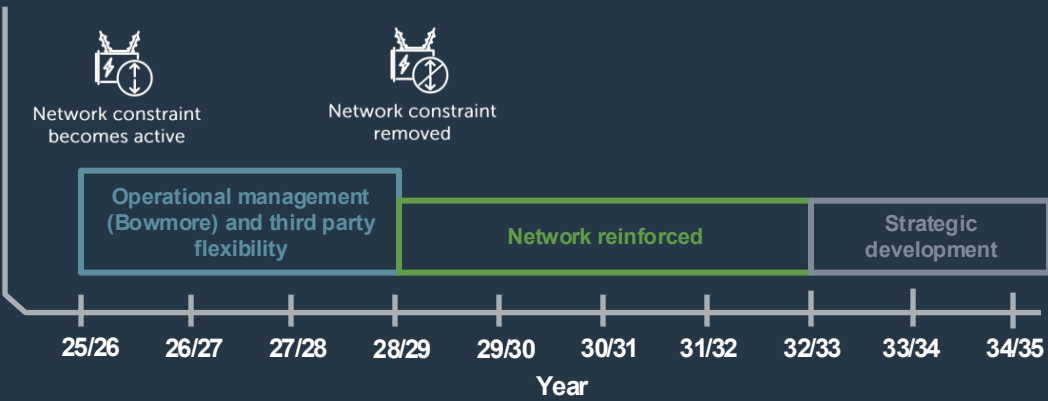


System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario (SCO)										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	14.4	14.7	17.7	(18.2)	(18.7)	(19.3)	(19.7)	5.65	6.04	6.22
ST	14.3	14.4	17.0	(17.3)	(17.5)	(17.8)	(18.2)	4.17	4.61	4.91
LTW	14.4	14.6	17.5	(18.0)	(18.4)	(19.0)	(19.5)	5.59	6.04	6.30
FS	14.2	14.3	16.9	(16.9)	(17.0)	(17.1)	(17.4)	3.14	3.45	3.71

Constraint management timeline



DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of Portree PSS & Uig PSS will increase capacity in the Skye area. Postcode(s): IV51.
- Local authority: The Highland Council
- Load related –voltage issues during intact conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

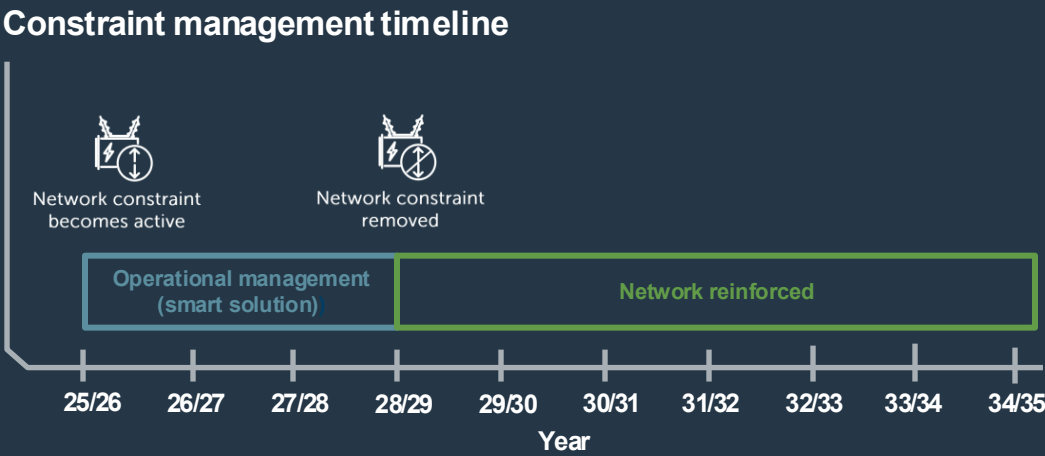
Proposed option

- Asset Solution: Build a new primary substation (Brogaig PSS) and connect it to circuits out of Portree PSS. Replace sections of the circuit between Dunvegan GSP and the Portree PSS busbar feeding Portree PSS, Uig PSS and the new primary substation.
- Flexibility was unable to be utilised due to technical feasibility and network configuration.
- This option addresses the forecasted voltage issues at Portree PSS and Uig PSS out to 2050.
- Capacity released: 0.98MVA

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario											
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	
CT	-	-	-	-	-	-	-	-	-	-	
ST	-	-	-	-	-	-	-	-	-	-	
LTW	-	-	-	-	-	-	-	-	-	-	
FS	-	-	-	-	-	-	-	-	-	-	

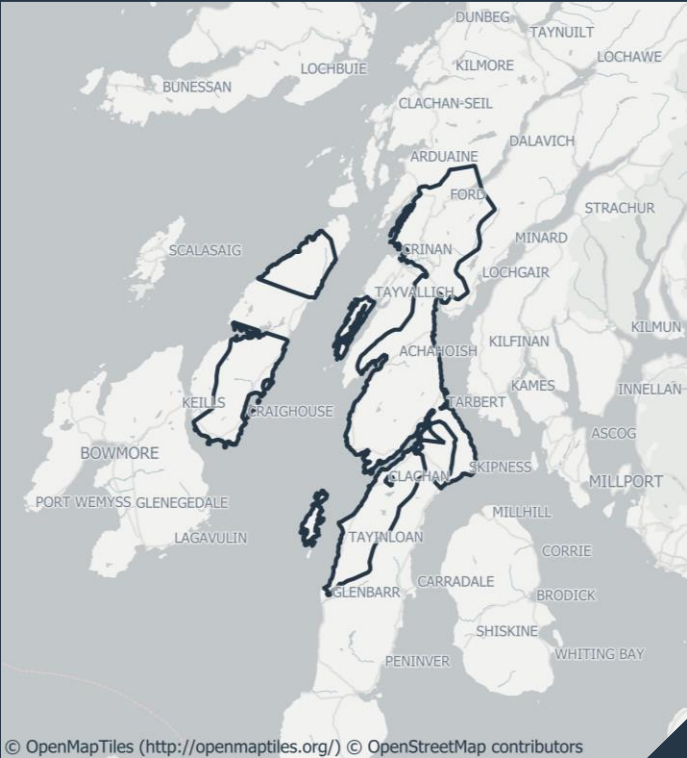


Scheme description

- The reinforcement of the Lochgilphead & Carradale 33kV circuits will increase capacity in the Kintyre area. Postcode(s): PA23, PA29-33, PA60, PA44
- Local authority: Argyll & Bute Council
- Load related – Thermal overload and voltage issues during both intact and FCO circuit conditions due to forecasted demand growth

Proposed option

- Asset Solution: Reinforcement of the Port Ann - Lochgilphead and the Carradale - Lochgilphead 33kV circuits.
- Flexibility was unable to be utilised due to being assessed as uneconomical from the CEM output.
- This option addresses the forecasted thermal and voltage issues on the Port Ann 33kV circuits out to 2035. Further network investment will be required to enable a constraint free network out to 2050.
- Capacity released: 11.15MVA



Indicative flexibility price (if available)

Availability price: £ 108 /MW/h Utilisation price : £ 133 /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

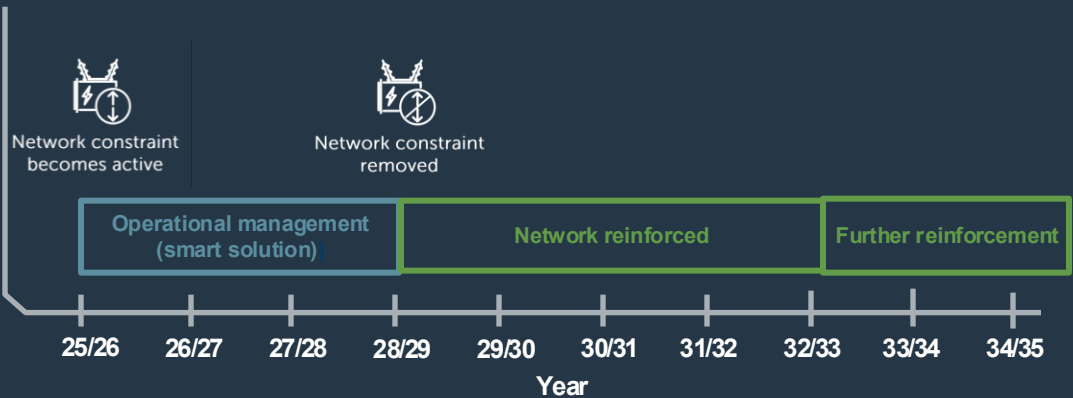
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	0.03	0.07	0.13	(0.20)	(0.27)	(0.32)	(0.40)	(0.48)	(0.56)	(0.64)
ST	0.03	0.06	0.08	(0.09)	(0.15)	(0.18)	(0.29)	(0.35)	(0.41)	(0.50)
LTW	0.05	0.08	0.11	(0.15)	(0.21)	(0.27)	(0.36)	(0.46)	(0.56)	(0.66)
FS	0.03	0.04	0.04	(0.05)	(0.07)	(0.09)	(0.14)	(0.18)	(0.22)	(0.27)

Constraint management timeline



DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of the Dervaig PSS will increase capacity in the Isle of Mull area. Postcode(s): PA65, PA67, PA72, PA73, PA74, PA75, PA77, PA78.
- Local authority: Argyll and Bute
- Load related – Low voltage conditions due to forecasted demand growth.

Proposed option

- Asset Solution: Installation of 3x 2MVar STATCOMs at Dervaig PSS.
- Flexibility was unable to be utilised due to it not being suitable for the constraint type.
- This option addresses the voltage issues related to the forecasted demand growth at Dervaig PSS.
- Capacity released: 3.7MVA.

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

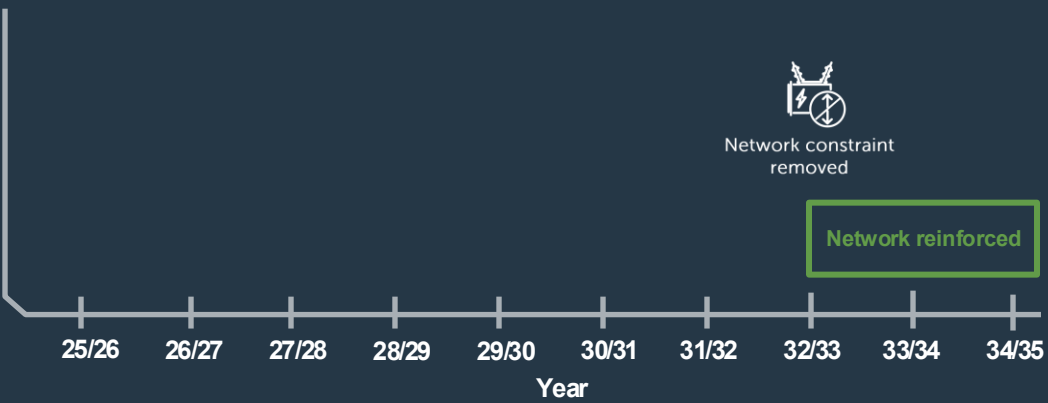
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of the Thurso South - Orkney 33kV circuit will increase capacity in the Orkney area. Postcode(s): AB11, KW1, KW3, KW12, KW14 - 17.
- Local authority: Highland, Orkney Islands
- Load related – circuit thermal overload during intact, FCO and SCO conditions due to forecasted demand growth.
- The proposed work forms the first phase of strategic development as referenced in our HOWSUM proposals. Further assessment will be undertaken on the need for later phases from ED3.

Indicative flexibility price (if available)

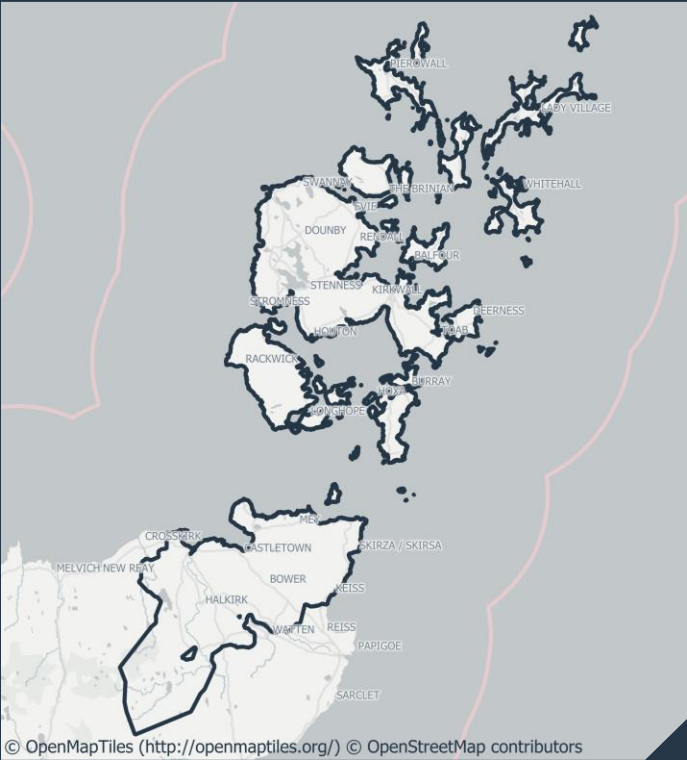
Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

Proposed option

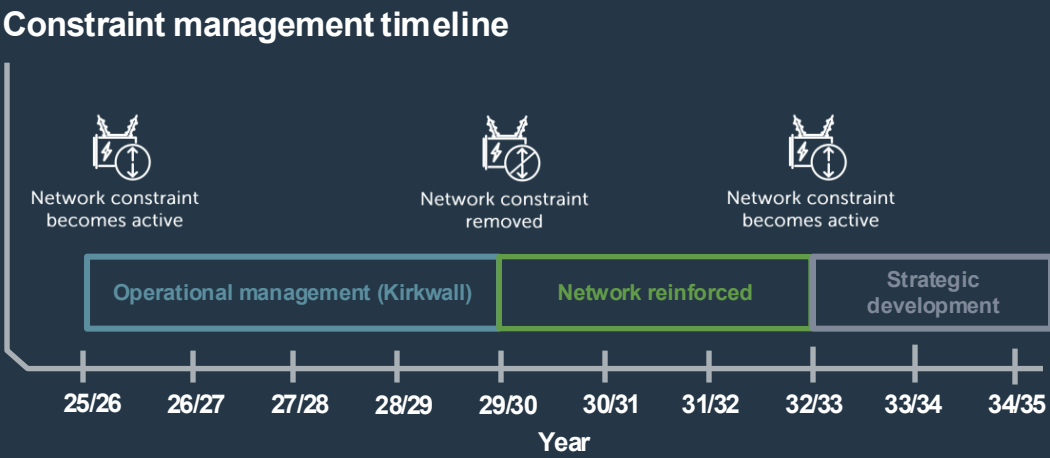
- Asset Solution: Installation of a 66kV cable between Thurso South and South Ronaldsay initially operating at 33kV. Works set up future network reinforcement as part of the long-term plan for reinforcing the Orkney Islands. Network to be operationally managed through use of Kirkwall power station until asset solution is complete.
- Flexibility was unable to be utilised due to insufficient market viability.
- This option addresses the forecasted thermal issues identified in ED2. Additional works are required in ED3+ to secure the network out to 2050 as defined in our HOWSUM proposals.
- Capacity released: 35MVA

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario* (SCO)											
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	
CT	20.46	22.97	27.29	30.86	(35.12)	(39.39)	(41.18)	(43.05)	15.65	17.24	
ST	22.21	26.22	30.56	34.57	(39.63)	(44.52)	0.6	2.67	21.03	22.77	
LTW	19.71	22.81	25.9	28.8	(31.97)	(34.11)	(36.01)	(38.03)	10.95	12.86	
FS	17.66	18.98	20.55	22.32	(24.63)	(25.99)	(27.67)	(29.51)	2.09	3.75	

*Based on current capacity under FCO conditions excluding use of diesel embedded generation



DNOA outcome: Asset Solution

Scheme description

- The reinforcement of Kinloch PSS will increase capacity in the South of Loch Scridain area. Postcode(s): PA66, PA67, PA70, PA72, PA75, PA76.
- Local authority: Argyll and Bute.
- Load related – security of supply issues due to forecasted demand growth.

Proposed option

- Asset Solution: Installation of a new primary substation at Bunessan with a single 33/11kV 2.5MVA transformer, a new 33kV interconnection from Bunessan to Lochdonhead primary, and reinforcement of the 11kV interconnection between Kinloch to Bunessan.
- Flexibility was unable to be utilised due to not being technically suitable for this constraint type.
- This option addresses the forecasted demand growth at Kinloch PSS out to 2050.
- Capacity released: 1.8MVA

Indicative flexibility price (if available)

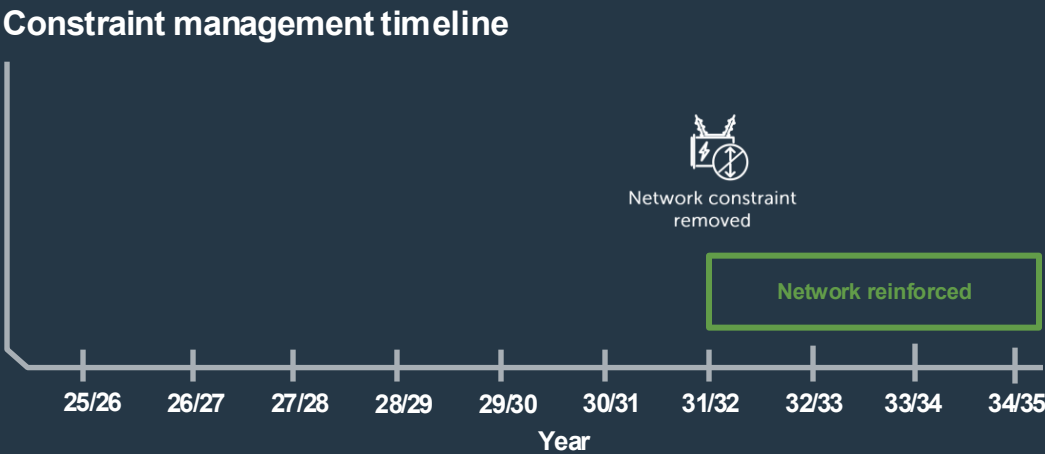
Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of Drymen PSS and Killearn PSS will increase capacity in the area southeast of Loch Lomond. Postcode(s): G63, G83.
- Local authority: Stirling Council & West Dunbartonshire Council
- Load related – substation thermal overload issues during FCO due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 108 /MW/h Utilisation price : £ 133 /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

Estimated peak MW outside firm network capacity under each scenario

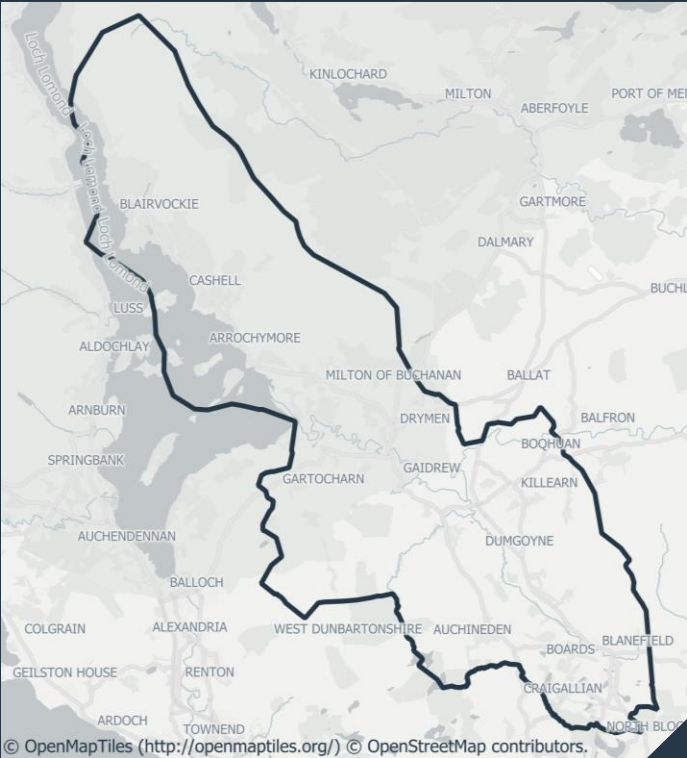
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	0.88	1.25	1.64	(2.09)	(2.55)	(2.95)	(3.35)	(3.79)	(4.22)	(4.65)
ST	0.75	0.93	1.10	(1.27)	(1.54)	(1.72)	(1.99)	(2.21)	(2.44)	(2.71)
LTW	1.12	1.46	1.83	(2.21)	(2.66)	(3.13)	(3.53)	(3.94)	(4.34)	(4.74)
FS	0.69	0.80	0.93	(1.06)	(1.21)	(1.35)	(1.55)	(1.74)	(1.94)	(2.16)

Proposed option

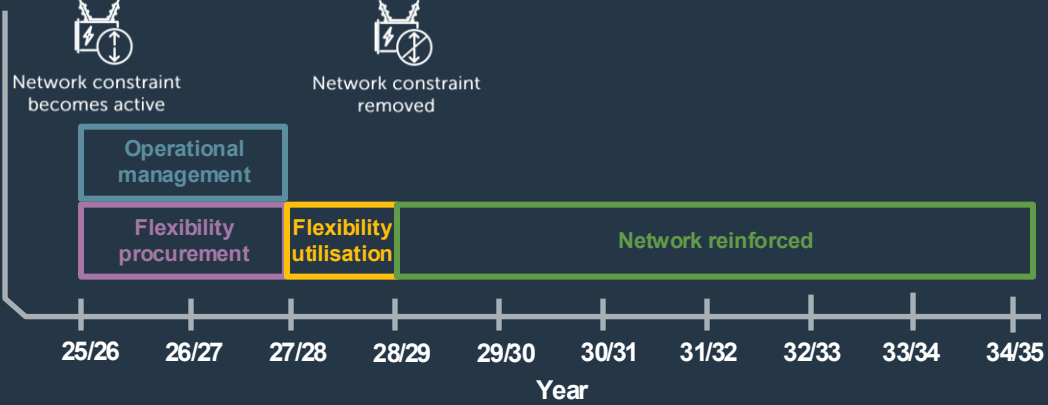
- Flexibility/Asset Solution: Replace the existing transformer at Drymen PSS and replace the existing transformer at Killearn PSS.
- Flexibility was recommended due to the capacity shortfall. The short-term reinforcement will be managed operationally, with flexibility sought in 2027/28.
- This option addresses the forecasted thermal overload issues at Drymen PSS and Killearn PSS out to 2050.
- Capacity released: 8.75MVA

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Constraint management timeline



DNOA outcome: Operational management followed by asset solution.

Scheme description

The reinforcement of the Oban PSS will increase capacity in the Oban area. Postcode(s): PA28, PA31, PA34, PA37.

Local authority: Argyll and Bute

Load related – substation thermal overload issues during network FCO conditions due to forecasted demand growth.

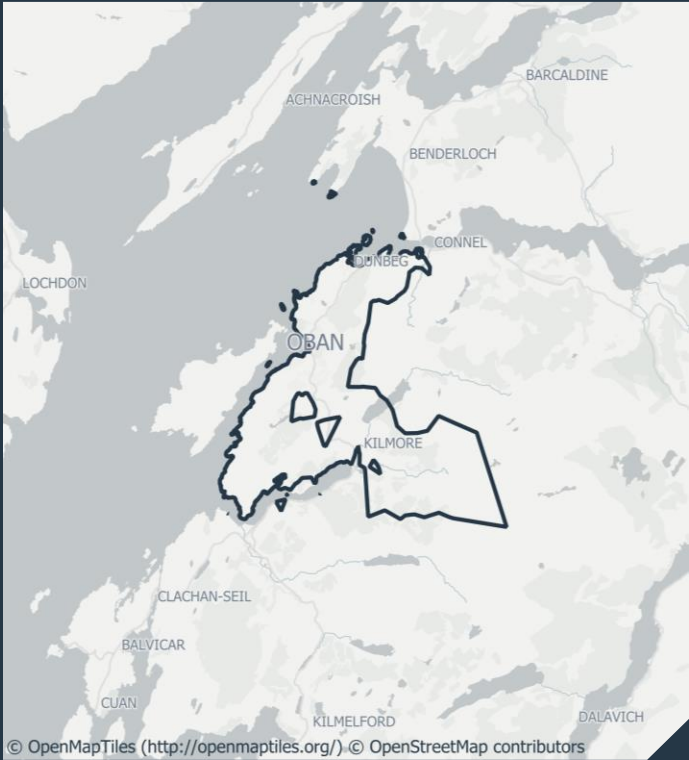
Proposed option

Asset Solution: Reinforcement of the 33kV OHL segments attached to the Oban PSS.

Flexibility was unable to be utilised due to network resilience requirements.

This option addresses the immediate overload problem; however, additional reinforcement of the network is required before 2050.

Capacity released: 11.7MVA



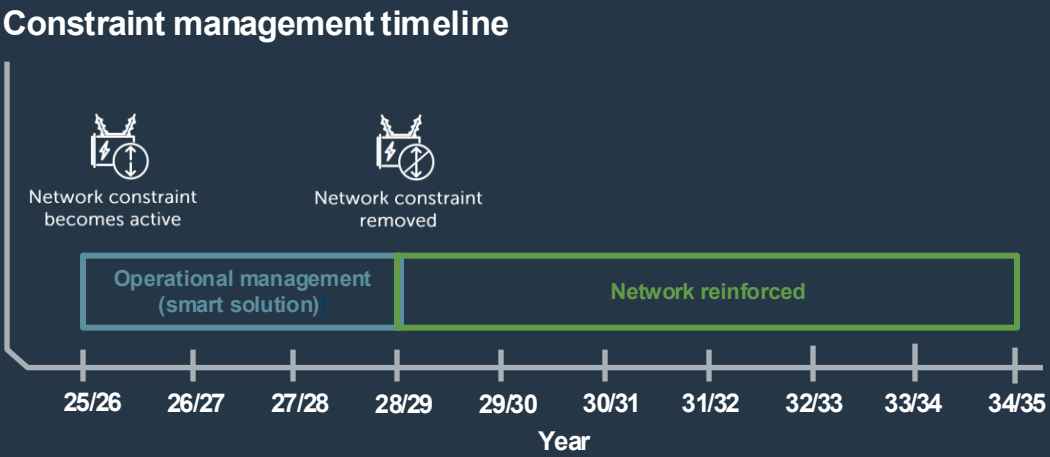
Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario											
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	
CT	3.27	3.75	4.58	(5.59)	(6.71)	(7.88)	(9.09)	(10.03)	(11.06)	(12.08)	
ST	2.93	3.06	3.29	(3.56)	(3.89)	(4.35)	(4.83)	(5.44)	(6.20)	(7.80)	
LTW	3.36	3.99	4.85	(5.79)	(6.85)	(8.17)	(9.51)	(10.53)	(11.66)	(12.90)	
FS	2.86	2.95	3.08	(3.23)	(3.41)	(3.62)	(3.89)	(4.23)	(4.62)	(5.07)	





Cricklade - Minety (Cricklade PSS & Minety Village PSS)

DNOA Outcome Report Related SDP: Minety

DNOA outcome: Asset solution

Scheme description

- The reinforcement of the circuits from Cirencester BSP to Cricklade PSS, and to Minety Village PSS and Kemble RAF PSS will increase capacity in the Cricklade-Minety area. Postcode(s): GL7, SN4, SN5, SN6, SN16.
- Local authority: Cotswold and Wiltshire
- Load related – Circuit voltage issues during FCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: An additional circuit from Cirencester BSP to Cricklade PSS, two additional circuits from Cirencester BSP to Minety Village PSS, and reconfigure the existing ringed network.
- Flexibility was unable to be utilised due to it not being suitable for the constraint type.
- This option addresses the forecasted issues out to 2050.
- Capacity released: 73.3 MVA

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price: £ N/A /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

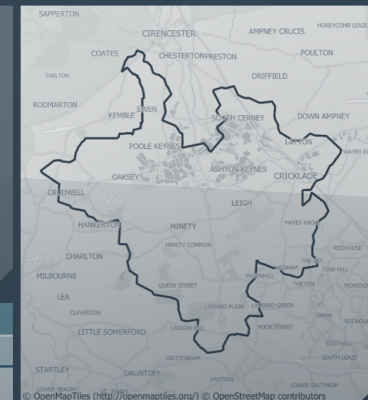
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment				

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA OUTCOMES REVIEW - SHEPD

Outcome ID	Outcome name	July 2024 outcome decision	Updated position
Ref. 0724-01	Aberdeen (Springhill PSS)	Flexibility followed by asset solutions	Project delivery recommends extension of flexibility by two years to ensure deliverability.
Ref. 0724-02	Dundee (Ashludie PSS)	Flexibility followed by asset solutions	Project delivery recommends extension of flexibility by two years to ensure deliverability.
Ref. 0724-03	Kenmore (Coshievillie PSS)	Flexibility followed by asset solutions	Flexibility requirements unchanged.
Ref. 0724-04	Moray (Elgin GSP, Burghead PSS, Lossiemouth PSS)	Flexibility followed by asset solutions	Flexibility requirements unchanged.
Ref. 0724-05	Newtonhill (Newtonhill PSS)	Flexibility followed by asset solutions	Flexibility requirements unchanged.
Ref. 0724-06	Stoneywood (Stoneywood T1 & T2 PSS)	Flexibility followed by asset solutions	Project delivery recommends extension of flexibility by three years to ensure capacity availability.
Ref. 0724-07	Calvine – Dalnaspidal (Calvine PSS)	Asset solution	Project delivery review recommends operational management for two years to ensure capacity availability.
Ref. 0724-08	Dunoon & Isle of Bute (33kV circuits	Asset solution	Project delivery review recommends operational management for one year to ensure capacity availability.



Outcome ID	Outcome name	July 2024 outcome decision	Updated position
Ref. 0724-09	Harris & Lewis (Harris 33kV circuits)	Asset solution	Review not required inline with the DNOA methodology.
Ref. 0724-10	Inverness (Waterloo Place PSS)	Asset solution	Review not required inline with the DNOA methodology.
Ref. 0724-11	Isle of Arran (Brodick & Balliekine PSS)	Asset solution	Review not required inline with the DNOA methodology.
Ref. 0724-12	Isle of Lewis (Gisla PSS)	Asset solution	Project delivery review recommends operational management for two years to ensure capacity availability.
Ref. 0724-13	Lewis and Harris (Stornoway and Harris GSP's)	Asset solution	Review not required inline with the DNOA methodology.
Ref. 0724-14	Shetland (Scalloway, Sandwick, & Sumburgh PSSs)	Asset solution	Project delivery review recommends operational management for one year to ensure capacity availability.
Ref. 0724-15	Strathdon – Rhynie (Mossat PSS)	Asset solution	Review not required inline with the DNOA methodology.





Cricklade - Minety (Cricklade PSS & Minety Village PSS)

DNOA Outcome Report Related SDP: Minety

DNOA outcome: Asset solution

Scheme description

- The reinforcement of the circuits from Cirencester BSP to Cricklade PSS, and to Minety Village PSS and Kemble RAF PSS will increase capacity in the Cricklade-Minety area. Postcode(s): GL7, SN4, SN5, SN6, SN16.
- Local authority: Cotswold and Wiltshire
- Load related – Circuit voltage issues during FCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: An additional circuit from Cirencester BSP to Cricklade PSS, two additional circuits from Cirencester BSP to Minety Village PSS, and reconfigure the existing ringed network.
- Flexibility was unable to be utilised due to it not being suitable for the constraint type.
- This option addresses the forecasted issues out to 2050.
- Capacity released: 73.3 MVA

Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price: £ N/A /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment				



Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA OUTCOMES - SEPD

DNOA outcome: Flexibility followed by asset solution.

Scheme description

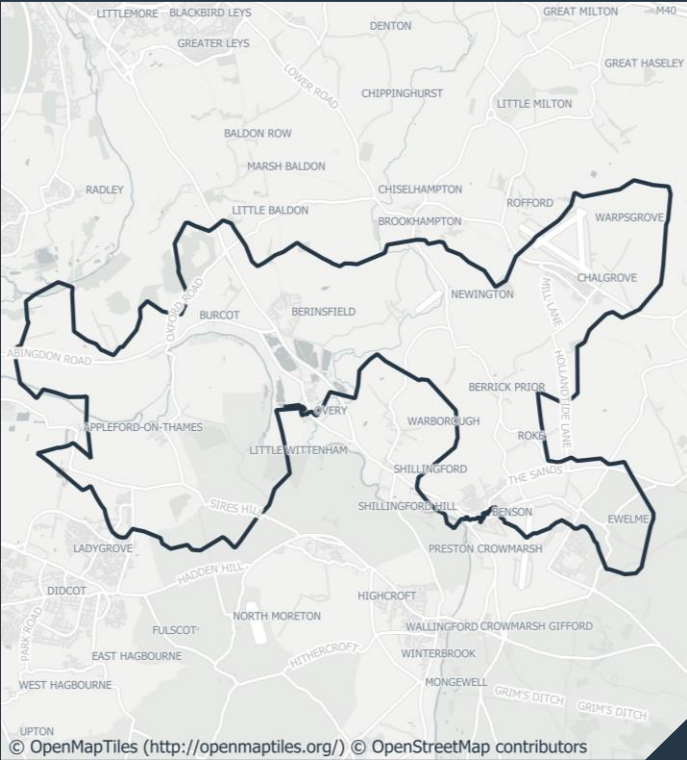
- The reinforcement of Berinsfield PSS will increase capacity in the Berinsfield area. Postcode(s): OX10, OX11, OX13, OX14, OX44.
- Local authority: South Oxfordshire.
- Load related – substation thermal overload issues during network FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 108 /MW/h Utilisation price : £ 133 /MW/h

Proposed option

- Flexibility/Asset Solution: Flexibility used for one year. Following this an asset solution for replacement of the two existing transformers to 20/40MVA rated units.
- This option addresses the forecasted demand growth at Berinsfield PSS out to 2038, when coupled with circuit work that is currently proposed for delivery at a later date.
- Capacity released: 16MVA.

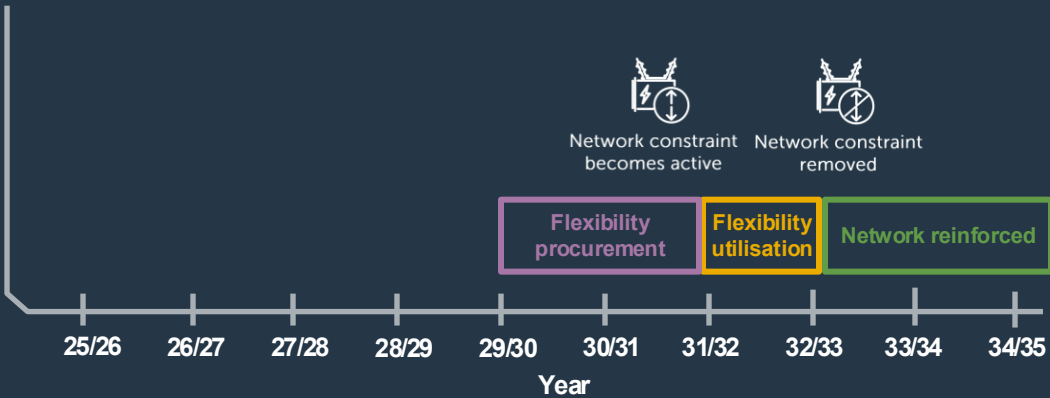


System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	1.63	(4.34)	(7.02)	(9.76)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	0.44	3.23	(5.96)	(8.69)	(11.31)
FS	-	-	-	-	-	-	-	-	(0.45)	(2.14)

Constraint management timeline



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of Lytchett BSP will increase capacity in the Central Dorset area. Postcode(s): DT2, DT11, BH15-18, BH20-21.
- Local authority: Dorset.
- Load related – substation thermal overload issues during FCO conditions due to forecasted demand growth.

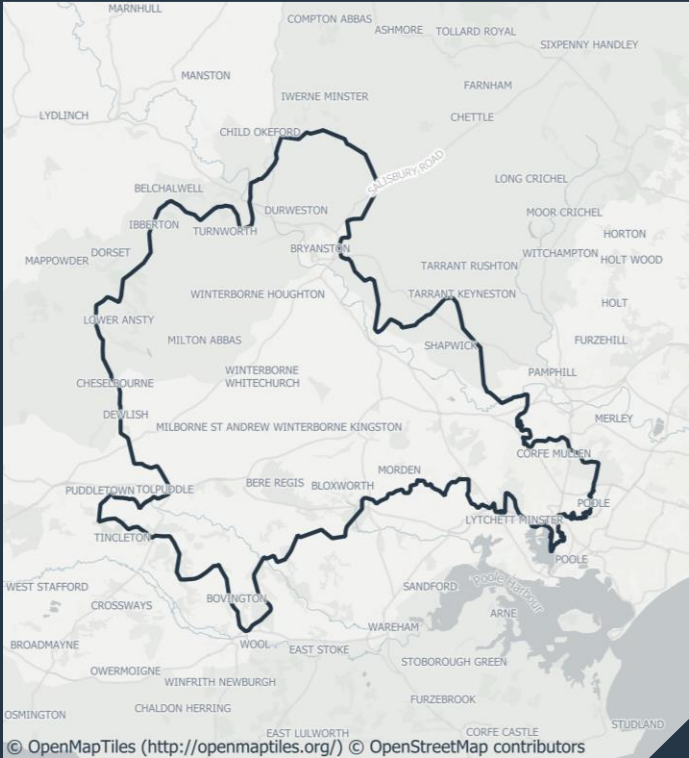
Indicative flexibility price (if available)

Availability price: £ 119 /MW/h Utilisation price : £ 158 /MW/h

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

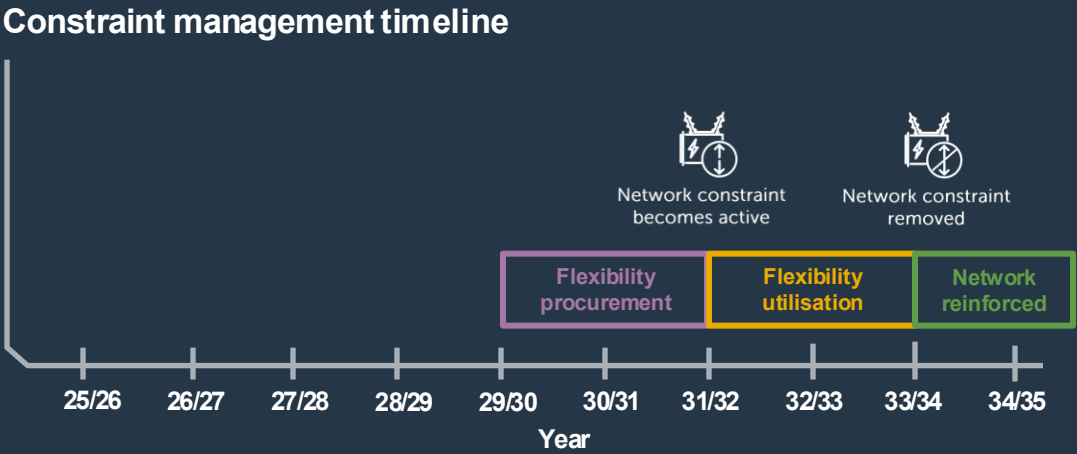
Proposed option

- Flexibility/Asset Solution: Flexibility is used for two years followed by asset solution. Addition of a third 132/33kV transformer at Lytchett BSP and new 132kV GIS switchboard.
- This option addresses the forecasted thermal issues at Lytchett BSP out to 2050.
- Capacity released: 120MVA



System need requirement												DNOA History				
J	F	M	A	M	J	J	A	S	O	N	D	2024/25	2025/26	2026/27	2027/28	2028/29
													Initial assessment			

Estimated peak MW outside firm network capacity under each scenario											
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	
CT	-	-	-	-	-	-	2.04	8.27	(13.28)	(19.17)	
ST	-	-	-	-	-	-	-	-	-	-	
LTW	-	-	-	-	-	1.54	7.15	12.94	(18.67)	(22.72)	
FS	-	-	-	-	-	-	-	-	-	-	



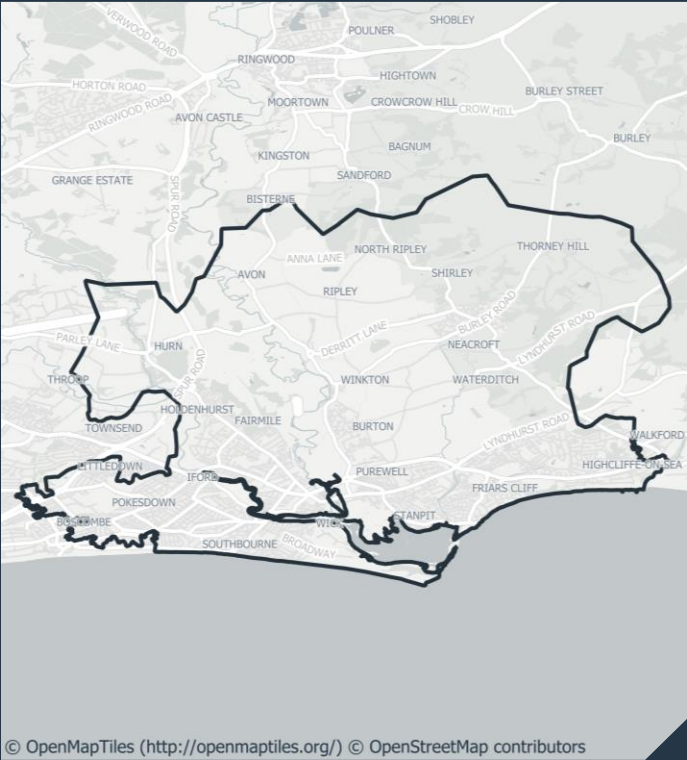
DNOA outcome: Operational management followed by asset solution.

Scheme description

- The reinforcement of the 132kV circuits from Mannington GSP towards Christchurch BSP will increase capacity in the Christchurch and New Milton area. Postcode(s): BH1-12, BH14-15, BH17, BH20, BH23-26, DT1, DT4, SP3, SP8, SL1, RG42.
- Local authority: Bournemouth Christchurch and Poole
- Load related – circuit thermal overload issues during SCO conditions due to forecasted demand growth.

Proposed option

- Smart/Asset Solution: Addition of 18km of dual 132kV cables from Mannington GSP to Christchurch BSP.
- Flexibility was unable to be utilised as the work is required to ensure security of supply compliance across the wider network area.
- This option addresses the forecasted SCO issues at Christchurch BSP out to 2050.
- Capacity released: 198MVA



Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

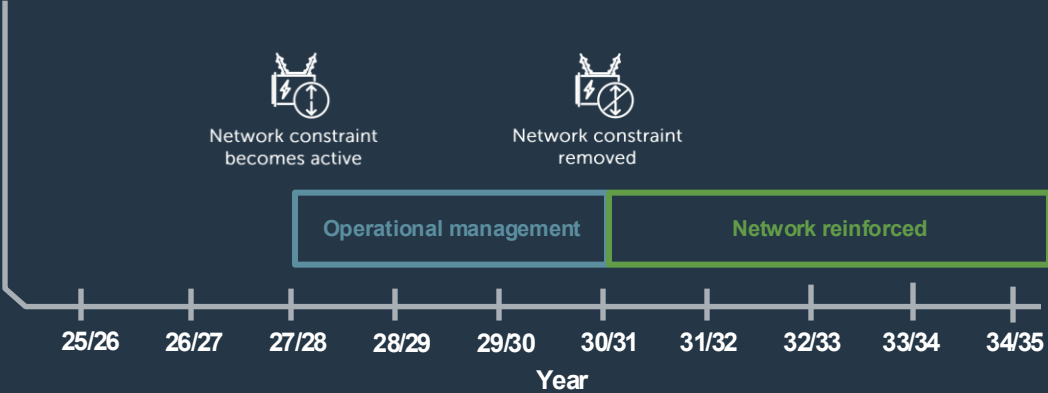
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	3.63	2.05	0.36	3.12	(7.00)	(11.19)	(15.21)	(20.23)	(27.46)	(34.29)
ST	2.13	0.33	2.84	7.21	(12.26)	(17.08)	(22.73)	(28.78)	(35.33)	(41.90)
LTW	4.57	3.70	2.76	1.49	(0.14)	(1.67)	(3.16)	(4.91)	(6.74)	(8.80)
FS	4.76	4.14	3.35	2.18	(0.77)	(0.61)	(2.01)	(3.51)	(5.51)	(9.86)

Constraint management timeline



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the Victoria Park PSS to Winton PSS 33kV circuits will increase capacity in the North Bournemouth area. Postcode(s): BH(1-12, 19).
- Local authority: Bournemouth, Christchurch, and Poole.
- Load related – circuit thermal overload issues during network intact conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 112 /MW/h Utilisation price : £ 142 /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

Proposed option

- Flexibility/Asset Solution: Flexibility is used for two years followed by asset solution. Reinforce a 1.5km section of 33kV circuit from Victoria Park PSS to Winton PSS.
- This option addresses the forecasted demand growth at Winton PSS out to 2040.
- Capacity released: 7.2MVA

DNOA History

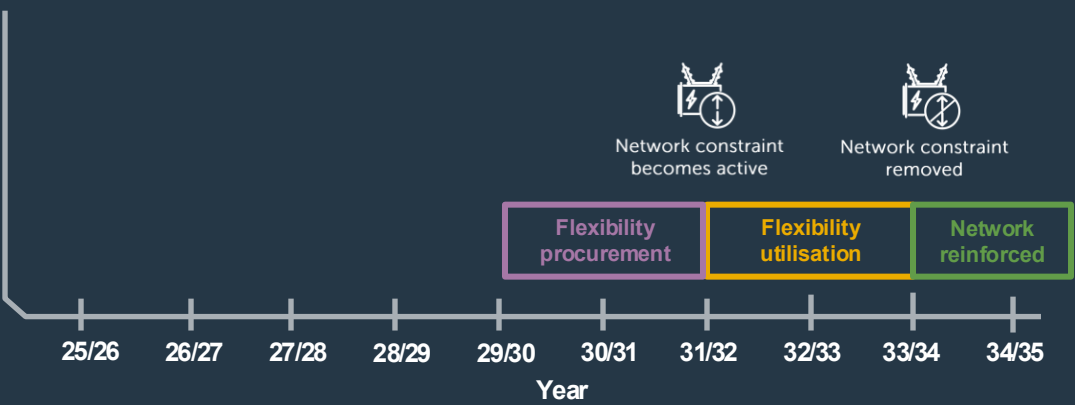
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	0.08	2.03	(3.56)	(5.48)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	0.38	2.25	4.19	(6.13)	(7.47)
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA outcome: Asset solution.

Scheme description

- The reinforcement of Shaftesbury BSP will increase capacity in the Shaftesbury and Salisbury area. Postcode(s): BA8-9, BA12, BH21, DT9-11, SP1-8.
- Local authority: Dorset, Wiltshire, Somerset
- Load related – Circuits thermal overload during FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

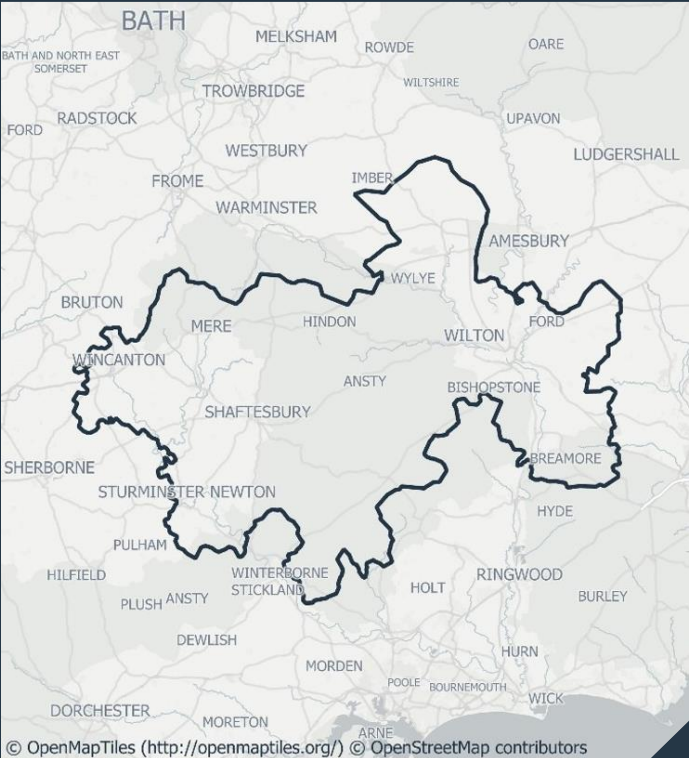
Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

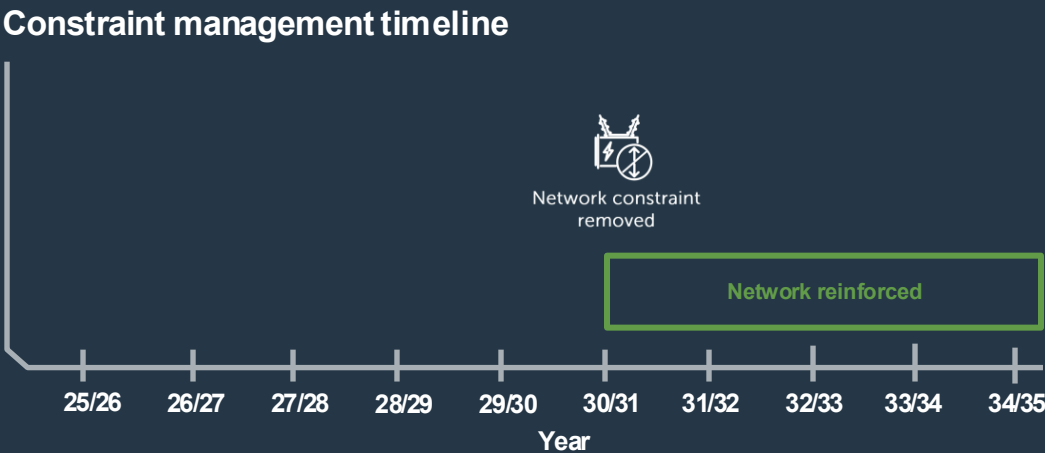
Proposed option

- Asset Solution: Build two new 132kV circuits from the Mannington GSP to Shaftesbury BSP.
- Flexibility was unable to be utilised as the work is required to enable connections and ensure security of supply compliance across the wider 132kV network area.
- This option addresses the forecasted demand growth at Shaftesbury and Salisbury BSP out to 2050 (following completion of the other related works).
- Capacity released: 252MVA.

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	(2.75)	(7.19)	(12.14)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	(2.20)	(7.29)	(12.28)	(15.85)
FS	-	-	-	-	-	-	-	-	-	-



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of Shaftesbury BSP will increase capacity in the Shaftesbury area. Postcode(s): BA8-9, BA12, BH21, DT9-11, SP3, SP5, SP7-8.
- Local authority: Dorset, Wiltshire, Somerset
- Load related – substation thermal overload during FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 150 /MW/h Utilisation price : £ 200 /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	2.75	(7.19)	(12.14)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	2.20	7.29	(12.28)	(15.85)
FS	-	-	-	-	-	-	-	-	-	-

Proposed option

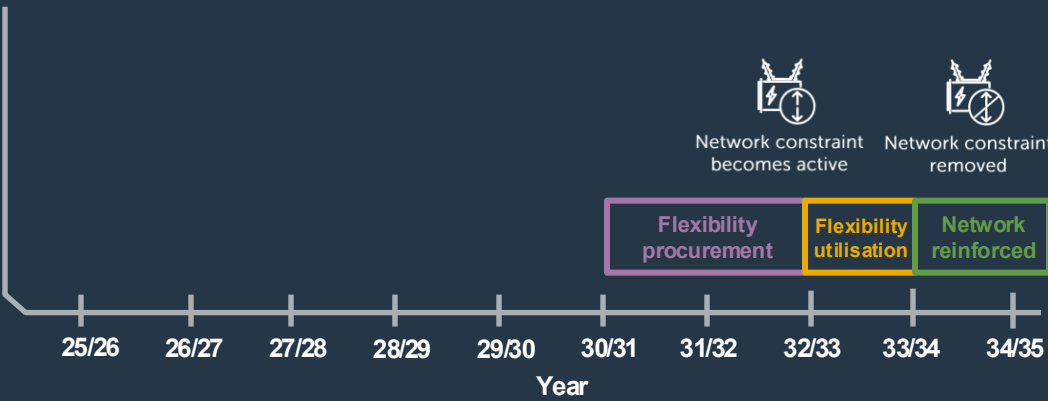
- Flexibility/Asset Solution: Flexibility used for one year. This is followed by an asset solution to add a third 90MVA 132/33kV transformer at Shaftesbury BSP.
- This option addresses the forecasted thermal issues at Shaftesbury BSP out to 2050.
- Capacity released: 90MVA.

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Constraint management timeline



DNOA outcome: Asset solution.

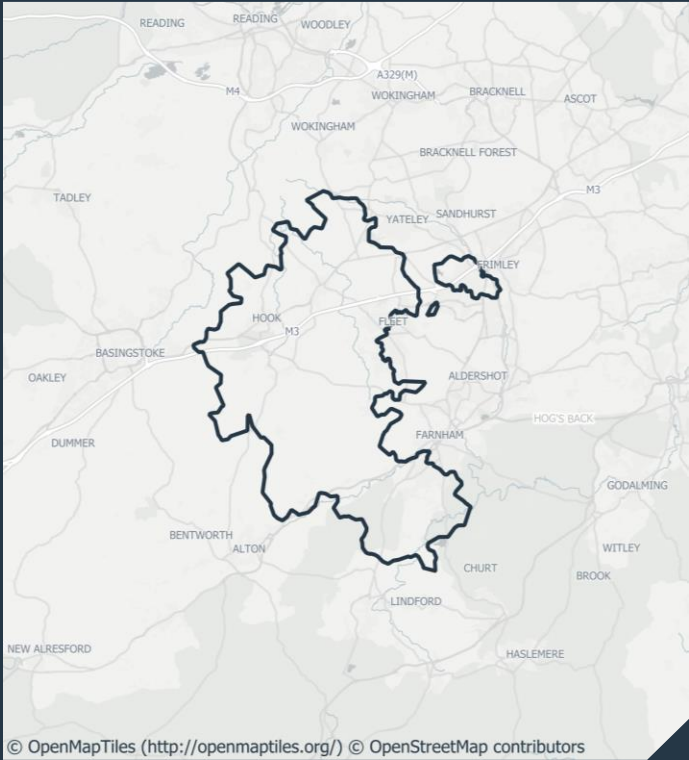
Scheme description

- The reinforcement of the Coxmoor Wood BSP will increase capacity in the Fleet area. Postcode(s): BA12, BN18, GU(7-17, 33-35, 46, 51, 52), RG(21, 24, 25, 27, 29, 40), SO24.
- Local authority: East Hampshire, Hart, Rushmoor, Surrey Heath, Waverly.
- Load related – substation thermal overload issues during network FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)
Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

Proposed option

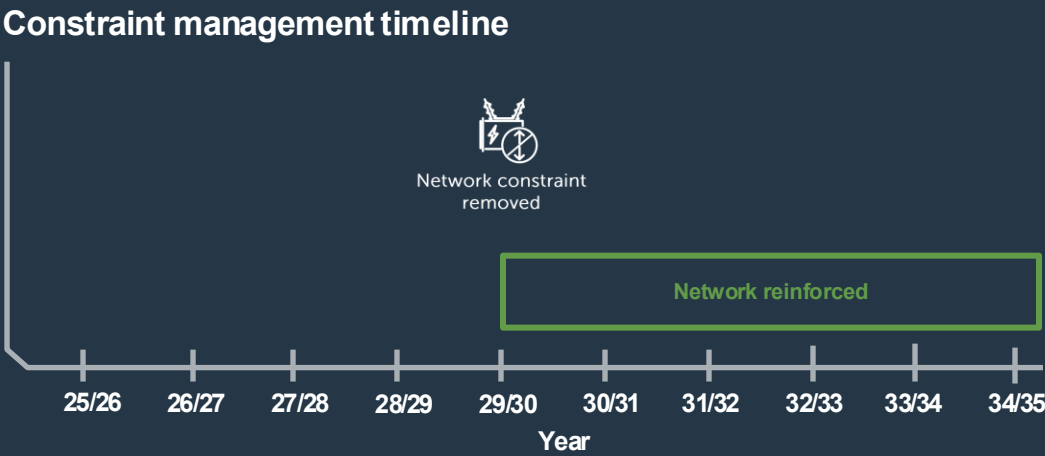
- Asset Solution: Installation of an additional 1 x 90MVA transformer, along with a 33kV gas insulated switchboard at Coxmoor Wood BSP.
- Flexibility was not utilised as the CEM output showed that it was uneconomical.
- This option addresses the forecasted demand growth at Coxmoor Wood BSP out to 2050.
- Capacity released: 90MVA



System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	(0.04)	(5.22)	(9.40)	(14.58)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	0.26	(5.04)	(10.00)	(15.06)	(18.66)
FS	-	-	-	-	-	-	-	-	-	-



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the East Howe PSS will increase capacity in the Northwest Bournemouth area. Postcode(s): BH(4, 6, 8-12, 17, 21, 22, 24, 31).
- Local authority: Bournemouth, Christchurch, and Poole, and Dorset.
- Load related – substation thermal overload issues during network FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 112 /MW/h Utilisation price : £ 142 /MWh

Proposed option

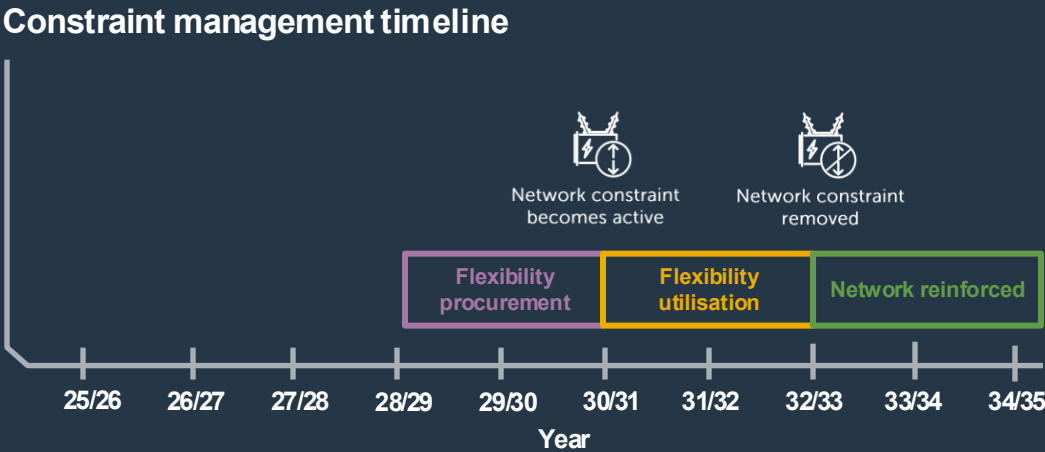
- Flexibility/Asset Solution: Flexibility used for two years. This is followed by reinforcing the two existing transformers to 40MVA units, along with the installation of a new indoor 11kV switchboard.
- This option addresses the forecasted demand growth at East Howe PSS out to 2036, with further works planned to accommodate demand out to 2050.
- Capacity released: 10MVA.



System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

DNOA History				
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario										
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	0.02	1.96	4.54	(6.93)	(8.92)	(11.19)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	0.62	2.63	4.91	7.28	(9.58)	(11.87)	(13.55)
FS	-	-	-	-	-	-	-	-	-	-



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the Springfield Road PSS will increase capacity in the Southall area. Postcode(s): UB1, UB2, UB3, UB4, UB10.
- Local authority: Ealing, Hillingdon.
- Load related – substation/circuit thermal overloads during FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 108 /MW/h Utilisation price : £ 133 /MW/h

System need requirement

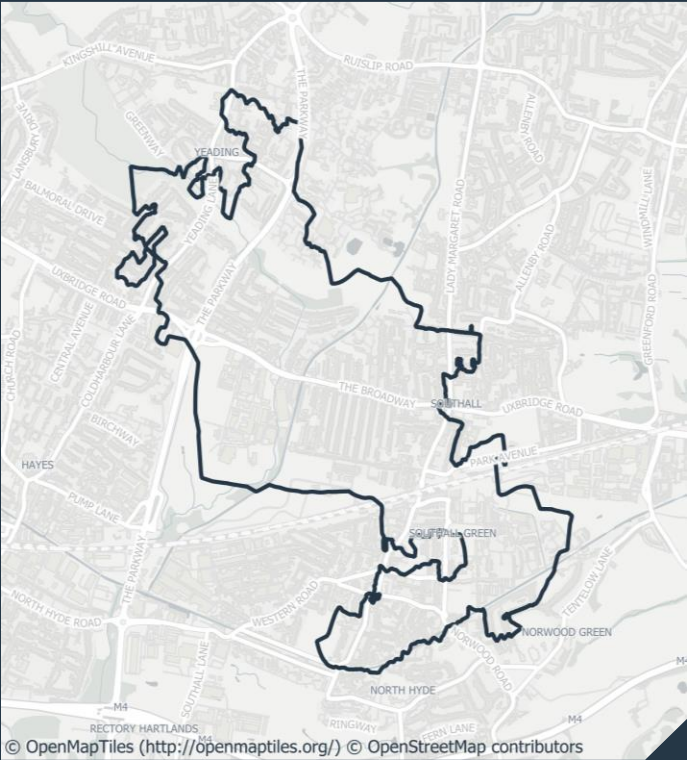
J	F	M	A	M	J	J	A	S	O	N	D

Proposed option

- Flexibility/Asset Solution: Flexibility used for two year period, followed by transformer upgrades at Springfield Road PSS with three new 40MVA units. Replacement of the existing 22kV circuits with 66kV circuits from the new 66kV busbar that is being developed at North Hyde BSP. Decommissioning of the Green PSS and transfer load to Springfield Road PSS.
- This option addresses the forecasted thermal overload at Springfield Road PSS and The Green PSS out to 2034. Additional HV works are required beyond this, building on this initial phase.
- Capacity released: 22.7MVA

DNOA History

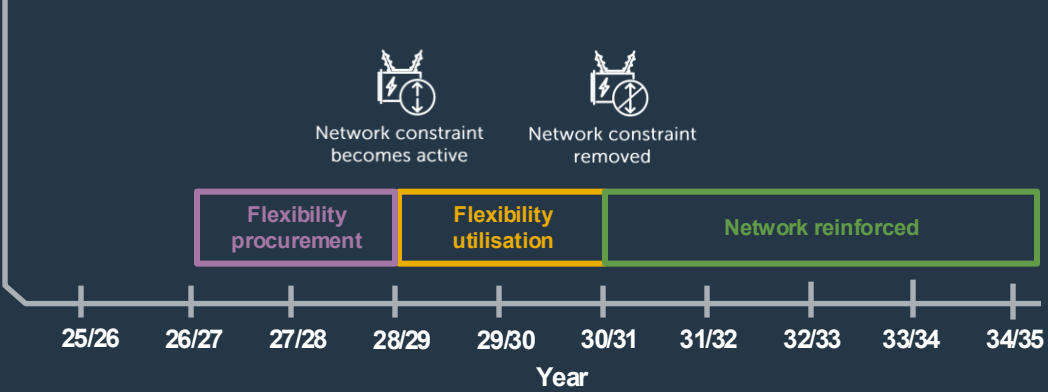
2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	1.79	4.19	(6.42)	(8.79)	(10.88)	(12.54)	(14.33)
ST	-	-	-	-	1.44	(2.82)	(4.09)	(5.31)	(6.39)	(7.62)
LTW	-	-	0.69	2.93	5.65	(8.12)	(10.40)	(12.54)	(14.56)	(16.02)
FS	-	-	-	-	1.04	(2.42)	(3.67)	(4.75)	(5.76)	(6.98)

Constraint management timeline



West Berkshire & East Wiltshire (Bramley (Amesbury-Thatcham) GSP)

DNOA outcome: Asset solution.

Scheme description

- The reinforcement of Bramley (Amesbury-Thatcham) GSP will increase capacity in the West Berkshire & East Wiltshire area.
Postcode(s): OX12, RG7, RG8, RG14, RG17-RG20, RG25, RG26, RG28, SN8-SN10, SP4, SP9, SP11.
- Local authority: Basingstoke & Deane, Oxfordshire, Vale of White Horse, West Berkshire, Wiltshire
- Load related – circuit thermal overload during FCO and SCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: New 132kV circuit from Bramley GSP to Thatcham BSP.
- Flexibility was unable to be utilised as it is not operationally feasible.
- This option addresses the forecasted thermal overload/voltage issues at Bramley (Amesbury-Thatcham) GSP out to 2036/37. This is the first stage of a longer-term strategy for the local network.
- Capacity released: 274MVA



Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MW/h

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

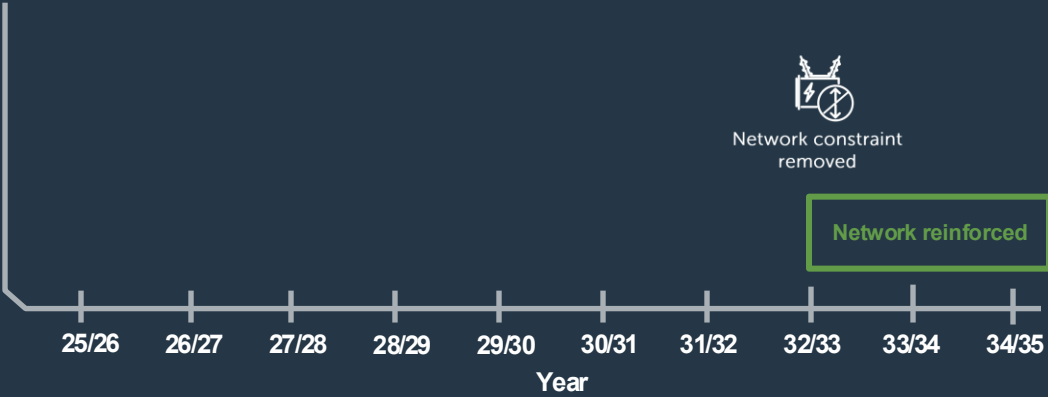
DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	(13.9)	(26.1)	(40.6)
ST	-	-	-	-	-	-	-	-	-	(5.3)
LTW	-	-	-	-	-	-	0.27	(14.5)	(28.4)	(44.0)
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of the Redhill BSP will increase capacity in the West Parley area. Postcode(s): BH(3, 8, 9, 10, 11,13, 22, 23).
- Local authority: Bournemouth, Christchurch, and Poole, and Dorset.
- Load related – substation thermal overload issues during network FCO conditions due to forecasted demand growth.

Indicative flexibility price (if available)

Availability price: £ 112 /MW/h Utilisation price : £ 142 /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	1.82	(4.05)
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	2.17	4.46	(6.00)
FS	-	-	-	-	-	-	-	-	-	-

Proposed option

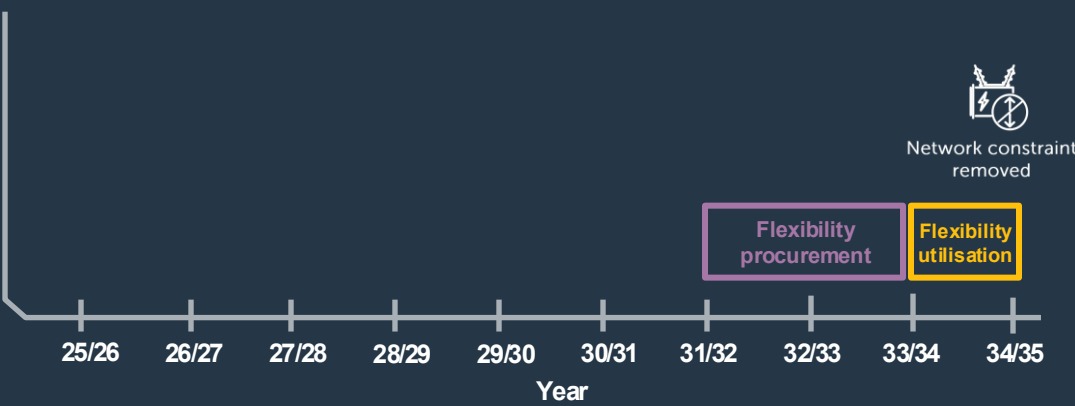
- Flexibility/Asset Solution: Flexibility for one year followed by installation of an additional 1 x 20/40MVA transformer at Redhill PSS.
- This option addresses the forecasted demand growth at Redhill PSS out to 2050.
- Capacity released: 40MVA.

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
	Initial assessment			



Constraint management timeline



DNOA outcome: Flexibility followed by asset solution.

Scheme description

- The reinforcement of Petersfinger PSS will increase capacity in the Wiltshire area. Postcode(s): SP1, SP2, SP4, SP5, SP9.
- Local authority: Wiltshire Council.
- Load related – Substation and circuit thermal overload issues during SCO conditions due to forecasted demand growth.

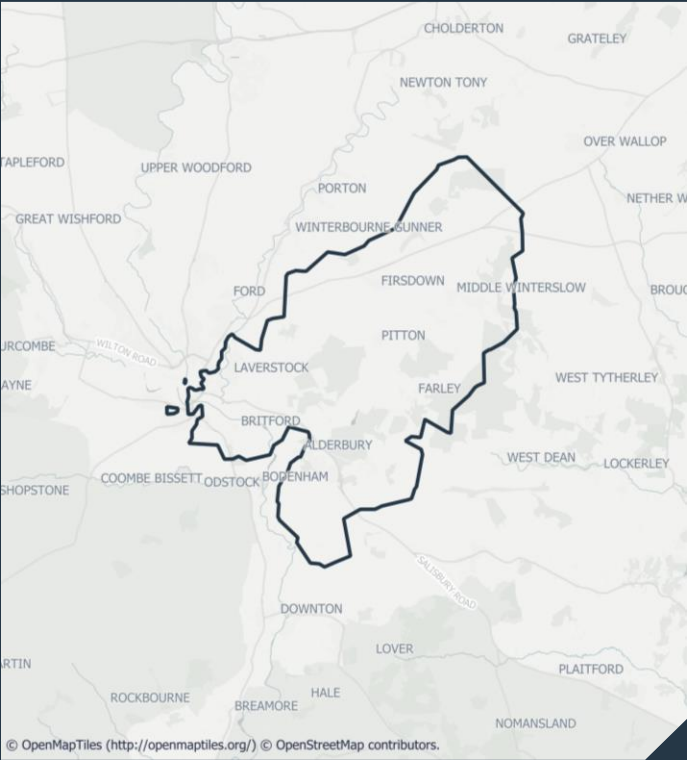
Indicative flexibility price (if available)

Availability price: £ 112 /MW/h Utilisation price : £ 142 /MWh

System need requirement											
J	F	M	A	M	J	J	A	S	O	N	D

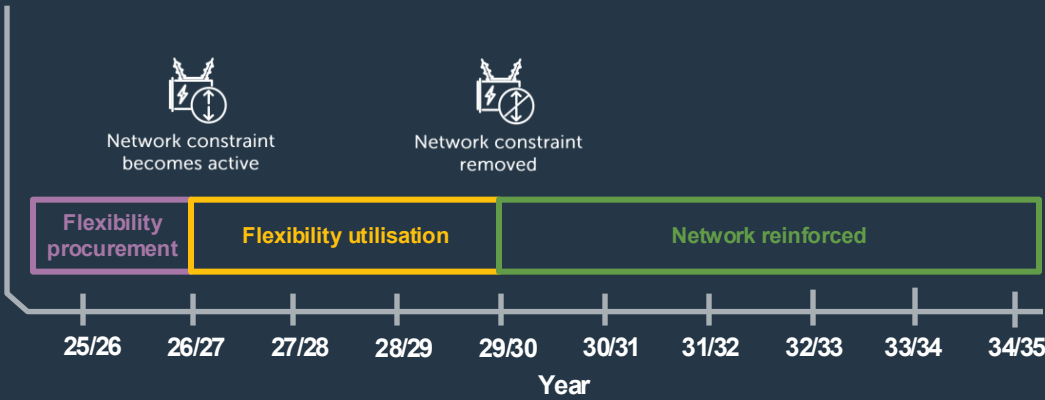
Proposed option

- Flexibility/Asset Solution: Remove Petersfinger PSS from the 33kV ring and install two dual dedicated circuits to the PSS from Salisbury BSP.
- This option addresses the forecasted thermal overload issues at Petersfinger PSS out to 2050.
- Capacity released: 24MVA.



Estimated peak MW outside firm network capacity under each scenario											
	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	
CT	-	0.21	1.73	2.58	(4.09)	(4.71)	(5.99)	(7.21)	(7.85)	(8.85)	
ST	-	-	0.84	1.28	(2.36)	(2.86)	(3.44)	(3.99)	(4.17)	(4.74)	
LTW	-	0.29	1.96	2.84	(4.61)	(5.36)	(6.71)	(8.04)	(9.06)	(10.11)	
FS	-	-	0.49	0.8	(1.790)	(2.06)	(2.53)	(2.99)	(3.510)	(3.67)	

Constraint management timeline





Cricklade - Minety (Cricklade PSS & Minety Village PSS)

DNOA Outcome Report Related SDP: Minety

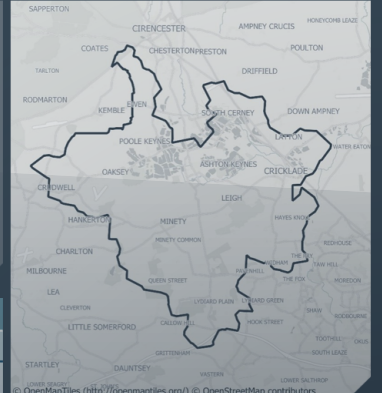
DNOA outcome: Asset solution

Scheme description

- The reinforcement of the circuits from Cirencester BSP to Cricklade PSS, and to Minety Village PSS and Kemble RAF PSS will increase capacity in the Cricklade-Minety area. Postcode(s): GL7, SN4, SN5, SN6, SN16.
- Local authority: Cotswold and Wiltshire
- Load related – Circuit voltage issues during FCO conditions due to forecasted demand growth.

Proposed option

- Asset Solution: An additional circuit from Cirencester BSP to Cricklade PSS, two additional circuits from Cirencester BSP to Minety Village PSS, and reconfigure the existing ringed network.
- Flexibility was unable to be utilised due to it not being suitable for the constraint type.
- This option addresses the forecasted issues out to 2050.
- Capacity released: 73.3 MVA



Indicative flexibility price (if available)

Availability price: £ N/A /MW/h Utilisation price : £ N/A /MWh

System need requirement

J	F	M	A	M	J	J	A	S	O	N	D

DNOA History

2024/25	2025/26	2026/27	2027/28	2028/29
Initial assessment				

Estimated peak MW outside firm network capacity under each scenario

	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35
CT	-	-	-	-	-	-	-	-	-	-
ST	-	-	-	-	-	-	-	-	-	-
LTW	-	-	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-	-	-

Constraint management timeline



DNOA OUTCOMES REVIEW - SEPD

Outcome ID	Outcome name	July 2024 outcome decision	Updated position
Ref. 0724-16	Alresford (Alresford PSS)	Flexibility followed by asset solutions.	Project delivery recommends extension of flexibility by two years to ensure deliverability.
Ref. 0724-17	Berkshire & Hampshire (Fleet – Bramley GSP)	Flexibility followed by asset solutions.	Project delivery recommends extension of flexibility by one year to ensure deliverability.
Ref. 0724-18	East Didcot (Fulscot and Cholsey PSSs)	Flexibility followed by asset solutions.	Project delivery recommends extension of flexibility by one year to ensure deliverability.
Ref. 0724-19	East Trowbridge (Ashton Park PSS) Phase 2	Flexibility.	Flexibility requirements remain unchanged.
Ref. 0724-20	Osney (Oxford BSP)	Flexibility followed by asset solutions.	Flexibility requirements remain unchanged.
Ref. 0724-21	Romsey (Romsey PSS)	Flexibility followed by asset solutions.	Flexibility requirements remain unchanged.
Ref. 0724-22	Romsey (Rownhams 33kV circuits)	Flexibility followed by asset solutions.	Flexibility requirements remain unchanged.
Ref. 0724-23	Aldershot (Tongham PSS)	Asset solutions.	Project delivery recommends operational management for one year to ensure capacity availability.



Outcome ID	Outcome name	July 2024 outcome decision	Updated position
Ref. 0724-24	Denham (Denham Avenue PSS)	Asset solution	Project delivery recommends operational management for three years to ensure capacity availability.
Ref. 0724-25	East Hounslow (Bridge Road PSS)	Asset solution	Project delivery recommends operational management for three years to ensure capacity availability.
Ref. 0724-26	East Trowbridge (Ashton Park PSS) Phase 1	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-27	Gerrards Cross (Gerrards Cross PSS)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-28	Harlington and Southall (North Hyde PSS)	Asset solution	Review not required inline with the DNOA methodology.
Ref. 0724-29	Harlington and Heathrow (Bath Road East PSS)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-30	North Bournemouth (Winton PSS) R	Asset solution	Project delivery recommends operational management for three years to ensure capacity availability.
Ref. 0724-31	North Ealing (Copley Dene PSS)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.



Outcome ID	Outcome name	July 2024 outcome decision	Updated position
Ref. 0724-32	Park Royal and Perivale (Park Royal & Perivale PSS)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-33	Slough and Windsor (Slough, Slough South, & Cippenham BSPs)	Asset solution	Project delivery recommends operational management for one year to ensure capacity availability.
Ref. 0724-34	Southall and Harlington (North Hyde BSP)	Asset solution	Review not required in line with the DNOA methodology.
Ref. 0724-35	South Buckinghamshire (Denham BSP)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-36	South Hampshire (Arnewood BSP)	Asset solution	Project delivery recommends operational management for four years to ensure capacity availability.
Ref. 0724-37	Uxbridge (Uxbridge PSS)	Asset solution	Project delivery recommends operational management for two years to ensure capacity availability.
Ref. 0724-38	Winchester (Winchester BSP)	Asset solution	Review not required in line with the DNOA methodology.
Ref. 0724-39	Wimbourne Minster (Wimbourne PSS)	Asset solution	Review not required in line with the DNOA methodology.





Glossary

Term	Description
Aggregators	A new type of energy service provider which can increase or moderate the electricity consumption of a group of consumers according to total electricity demand on the grid.
BSP	Bulk Supply Point.
CMZ	Constraint Managed Zones . These zones make use of technologies providing flexibility to alleviate network constraints, deploying them as an alternative to traditional network reinforcement in the management of peak demand.
Data triage	Systematically find issues which should inhibit open data, identify the 'least impact' mitigation technique(s) and make the process transparent.
Decarbonisation	Reducing the carbon intensity in terms of emissions per unit of electricity generated.
DER	Distributed Energy Resources. Any resource on the distribution system that produces or stores electricity. This can include distributed generation, storage, heat pumps and electric vehicles as well as other technologies.
Digital System Map/ Digital Twin	A digital representation of a real-world entity or system.
DNO	Distribution Network Operator
DNOA	Distribution Network Options Assessment
DSO	Distribution Systems Operator. The directorate within SSEN that supports a more flexible network operation. Uniquely placed to ensure simple and consistent access to new markets for our active customers through maximising the utilisation of our existing electrical and communication networks.
DSOAB	DSO Advisory Board
DSAP	Digital Strategy and Action Plan
FCO	First Circuit Outage. Conditions following loss of a circuit from the intact network.
FSO	Future System Operator. Ofgem intend to set up an expert, independent FSO with responsibilities across both the electricity and gas systems and the ability to expand its remit to additional energy vectors when needed. The FSO will be in the public sector, with operational independence from government.
GDN	Gas Distribution Network
GSP	Grid Supply Point
GW	Gigawatt
HV	High Voltage
IDNO	Independent Distribution Network Operator
kWh	Kilowatt hour
LAEP	Local Area Energy Plan. A data-driven and whole energy system, evidence-based approach that sets out to identify the most effective route for the local area to contribute towards meeting the national net zero target, as well as meeting its local net zero target.
LCT	Low Carbon Technologies

Term	Description
LENZA	Local Energy Net Zero Accelerator. SSEN's tool for supporting local authority LAEPs.
LEO(N)	Local Energy Oxfordshire (Neighbourhood)
LTDS	Long Term Development Statements. Designed to help to identify and evaluate opportunities for entering into arrangements with us relating to use of system or connection.
LV	Low Voltage
MW	Megawatt
NDP	Network Development Plan
NeRDA	Near Real-Time Data Access
NESO	National Energy System Operator. The National Energy System Operator for Great Britain, making sure that Great Britain has the essential energy it needs by ensuring supply meets demand.
NIA	Network Innovation Allowance
NMF	Neutral Market Facilitator will provide a market for trading use of Distributed Energy Resources (DERs).
Open Data	Data in a machine-readable format that can be freely used, shared and built on by anyone, anywhere, for any purpose.
PSS	Primary Substation
RIIO-ED2	Current price control for Electricity Distribution (2023-2028)
RIIO-ED3	The next price control for Electricity Distribution (2028-2033)
RESP	Regional Energy Strategic Plan
SCO	Second Circuit Outage. Loss of a circuit during the event of an already planned or unplanned network outage.
SEPD	Southern Electric Power Distribution
SHEPD	Scottish Hydro Electric Power Distribution
SIF	Strategic Innovation Fund
SME	Small Medium Size Enterprise
SSEN	Scottish and Southern Electricity Networks
TO	Transmission Owner
TOM	Target Operating Model
VFES	Vulnerability Future Energy Scenarios
VIVID	Vulnerability Identification Via Informative Data

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